

CLAIMS

1. A wear-resistant coating film comprising (A) (meth)acrylic copolymer resin, wherein the glass transition temperature (Tg1) thereof as determined by a rigid pendulum viscoelastometer and the glass transition temperature (Tg2) thereof as determined by a differential scanning calorimeter (DSC) are 110°C or more respectively, and the wear resistance thereof as determined by a Taber abrasion testing method is 80 times or more.
2. The coating film according to claim 1, wherein the difference among the glass transition temperature (Tg1) as determined by a rigid pendulum viscoelastometer, the glass transition temperature (Tg2) as determined by a differential scanning calorimeter (DSC) and the glass transition temperature (Tg3) thereof calculated from a monomer composition constituting the coating film is 30°C or more.
3. A (meth)acrylic copolymer (A) wherein the calculated glass transition temperature (Tg3) thereof is 50 to 150°C.
4. A (meth)acrylic copolymer resin (A) having a weight-average molecular weight (Mw) of 20,000 or more, produced by radical polymerizing (a-1) 4 to 50 wt% (meth)acrylic acid, (a-2) 0.5 to 17 wt% (meth)acrylic acid amide, and (b) 35 to 95.5 wt% compound having a reactive unsaturated bond other than (a-1) and (a-2).
5. A coating solution comprising the resin according to claim

4 dissolved in an organic solvent (B).